



State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES

6 Hazen Drive, P.O. Box 95, Concord, NH 03302-0095
(603) 271-3406 FAX (603) 271-7894



January 20, 2004
Letter of Deficiency
DSP#04-008

Mr. James Jameson
Milton Land Corporation
P.O. Box 453
Plaistow, NH 03865

RE: Milton Leatherboard Dam #161.04, Milton

Dear Mr. Jameson:

The Department of Environmental Services, Dam Bureau (DES) consistently strives to enhance the safety of dams in New Hampshire through its dam safety program. One of the many instruments that play a part in reaching this goal is our inspection program. DES is forwarding this correspondence to you to advise you that in accordance with RSA 482:12 and Env-Wr 502.02, an inspection of the subject dam was conducted on August 19, 2003. During this visual inspection and/or file review, the following items were observed:

- There was substantial leakage through the penstock intake structure. Water was observed exiting the turbine down tubes, through floor drains drilled through the side of the building, and through the downstream face of the dam on the far right side adjacent to the building foundation through dry stone masonry;
2. There was deteriorated concrete on the building foundation column located between the two turbine draft tubes. The river side of the column had spalled concrete while there was efflorescence on the right side of the column. This column appears to be a major structural support for the mill building;
 3. The right spillway abutment concrete was in poor condition. There is missing concrete on the upstream end of the pier between the spillway section and the penstock;
 4. The right upstream training wall, to the right of the penstock intake area, has missing concrete with the original stone masonry wall exposed in certain areas;
 5. The left spillway abutment is severely deteriorated. The upstream end of the concrete wall is undermined and has failed. This portion of the dam appears to be founded on bedrock and if it failed appears to be approximately the same elevation of the remaining concrete spillway;
 6. The concrete portion of the dam associated with the two waste gates is deteriorated and in poor condition. The left gate has been removed, however, the right gate remains in place and partially open;
 7. There are trees within 10 feet of the left abutment to the left of the waste gates;
 8. There is no operations and maintenance plan (O&M) on file with the DES;
 9. The Emergency Action Plan (EAP) has not been tested and updated.

10. There is an inspection gallery located at the toe of the dam between the left most 2 concrete buttresses. The gallery appears to extend upstream underneath the sloping concrete face of the dam. The original purpose of this gallery is unknown;

There is concrete deterioration at the base of the spillway cap located above the inspection gallery (i.e. where there is exposed rebar);

12. The remaining portions of the dike wall are in very poor condition; and
- 13 The annual dam registration fee (ADRF) has not been paid since 1998 The outstanding balance is \$2,100.

DES believes that the below deficiencies can be corrected by performing the following items by the indicated schedule:

March 1, 2004:

1. Prepare and submit an O&M plan
- 2 Update and test the EAP. For assistance in updating and testing your EAP, please contact Bethann McCarthy, P.E., EAP Coordinator at 271-3406;
- 3 Remit payment of the outstanding Annual Dam Registration Fee (ADRF) for years 1998 through 2004 in the amount of \$2,100;

August 1, 2004:

4. Remove trees from within 10 feet of the dam surrounding the waste gates;

Investigate and repair the source of leakage through the old penstock intake. This leakage could affect the long term structural stability of both the right spillway/intake structure as well as the mill foundation;

- 6 Repair the right most upstream retaining wall located to the right of the penstock intake
- 7 Repair the base of the spillway cap located above the inspection gallery (i.e. where there is exposed rebar);

On a continuing basis:

8. Monitor the concrete at the following locations for further deterioration
 - a The right spillway abutment;
 - b The waste gate section;
 - c. The buttress on the upstream left of the penstock intake;
 - d The left spillway abutment between the spillway and dike wall
 - e The mill foundation; and

Letter of Deficiency
Dam #161.04/DSP#04-008
January 20, 2004
pg. 3

- 9 Monitor the leakage at the penstock/turbine intake and contact between dam and mill building.

DES is requesting that you complete and submit the attached "Intent to Complete Repairs" form, within 30 days of receipt of this letter, that will provide for correction of the identified deficiencies by the date(s) indicated above. Please call or write to our office if the repairs are completed ahead of the aforementioned schedule so that DES may schedule a follow-up inspection. Unless notified otherwise, DES will conduct the follow-up inspection on or after the date(s) indicated above. If you believe changes to the items of work or dates are necessary, please make the changes directly on the form and provide a brief explanation. Please call or write to our office if the repairs are completed before the aforementioned schedule. We have enclosed a self addressed stamped envelope for you to return this form.

Our intent in sending you this correspondence is to make you aware of items that DES believes warrant your attention to insure the continued safe operation of your dam. It is our hope that, through the submittal of the attached form and a commitment to keeping a well-maintained dam, you will voluntarily comply with the requested items of work. If we do not receive the intent form or a similarly adequate written reply, we will assume that you are in agreement with our findings and recommendations and DES will carry out follow-up inspections accordingly.

If you have any questions or comments regarding this Letter of Deficiency or would like to be present at future inspections, please contact me at 271-3406, or write to the Water Division at 29 Hazen Drive, P.O. Box 95, Concord, NH 03302-0095.

Sincerely,

COPY

Jeffrey M. Blaney, P.E.
Dam Safety Engineer

Attachments Guideline for an O&M Plan, DB8, DB13

cc: Gretchen Rule ✓

Town of Milton

Nathaniel Pulsifer

Bethann McCarthy, P.E., EAP Coordinator

Certified # 7000 1670 0000 0586 2626

JMB/was/h:/safety/wendy/lod/161-04lod.doc